

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

Claims 1-3, 7-13, and 17-20 have been canceled, and new claims 21-42 have been added. Accordingly, claims 21-42 remain pending in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

In the Office Action, claims 1, 7-11 and 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Srivastava (U.S. Patent No. 5,999,737) in view of Click, Jr. et al. (U.S. Patent No. 6,408,433). As these claims have now been canceled, these rejections are now moot.

New claim 21 recites that a method for removing dead code in code fragments of a program comprises identifying each instruction assigning a register that is possibly live for a first exit in a first code fragment, and identifying each register that is assigned before being read in a second code fragment having a first entry. The method further comprises, at a time when linking the first exit from the first code fragment to the first entry in the second code fragment, comparing the registers in the instructions identified as being possibly live in the first code fragment with the identified registers in the second code fragment, and eliminating an instruction in the first code fragment based on the comparison.

Srivastava discloses a liveness analysis that identifies a first set of variables that are live immediately before each block is executed and identifies a second set of variables that are live immediately after each block is executed (column 3, lines 6-9 & column 8, lines 9-12). The first and second set of variables are used to locate dead-code that can be removed from the linked code module (column 3, lines 10-12).

In contrast to claim 21, Srivastava fails to disclose or suggest identifying each register that is assigned before being read in a second code fragment. In particular, there is nothing in

Srivastava that discloses or suggests that the identified live variables are used to identify which registers are assigned in a block before being used.

Furthermore, since Srivastava fails to disclose or suggest identifying each register that is assigned before being read in a second code fragment, Srivastava necessarily fails to disclose or suggest comparing the registers in the instructions identified as being possibly live in the first code fragment with the identified registers in the second code fragment and eliminating an instruction in the first code fragment based on the comparison, as recited in claim 21. Accordingly, for all of these reasons, claim 21 is patentably distinguishable from Srivastava.

Even if combinable, Click fails to cure the deficiencies of Srivastava. Like Srivastava, Click fails to disclose or suggest identifying each register that is assigned before being read in a second code fragment. Click therefore similarly fails to disclose or suggest comparing the registers in the instructions identified as being possibly live in the first code fragment with the identified registers in the second code fragment and eliminating an instruction in the first code fragment based on the comparison, as recited in claim 21. Accordingly, for all of these reasons, claim 21 is patentably distinguishable from the combination of Srivastava and Click.

Claims 22-31 are also patentably distinguishable from the combination of Srivastava and Click by virtue of their dependence from claim 21, as well as their additional recitations.

Claims 32-42 are patentably distinguishable from the combination of Srivastava and Click for reasons analogous to claim 21.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date November 4, 2004

By Thomas J. Blodke Reg. No. 438

(for) William T. Ellis  
Attorney for Applicants  
Registration No. 26,874  
Telephone: (202) 672-5485  
Facsimile: (202) 672-5399